

Application No. 10/042,849

REMARKS

Claims 35-71 are pending. By this Amendment, claims 35, 36, 38, 40, 41, 43, 47, 49, 53, 57-65, 70 and 71 are amended.

Rejection of Claim 38 Under 35 U.S.C. §112

The Examiner rejected claim 38 under §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner states that there is insufficient antecedent basis for the limitation "said electromagnetic radiation."

Applicant has amended claim 38 to include that the data is transmitted using electromagnetic radiation in a particular frequency range. Applicant respectfully requests that the rejection of claim 38 under §112, second paragraph be withdrawn.

Rejection of Claims 35, 36, 39-43, 46-71 Under 35 U.S.C. 102(e)

The Examiner rejected claims 35, 36, 39-43, 46-71 under §102(e) as being anticipated by Lewis et al. ("Lewis") U.S. Patent No. 6,418,979B1. In regard to the above claims and in particular to independent claims 35, 49, 58, 65 and 70, the Examiner stated that Lewis disclosed a SMIF pod system comprising a pod 2 comprising a pod shell 8 and a door 4 and a sensor capable of monitoring an internal condition and transmitting data (via receivers).

Applicant respectfully traverses the rejection of the above claims under §102(e) as being anticipated by Lewis. Lewis discloses a sensor mounted to a moveable plate 40 of an interface apparatus 20. The invention disclosed in Lewis has the clear disadvantage of only being able to monitor an internal mini-environment created by a bellow 80 of the interface apparatus 20 enclosing the pod. It cannot monitor the internal environment of the pod itself, such as during transportation when the pod shell is attached to the door.

Application No. 10/042,849

Lewis repeatedly discloses that the sensors are mounted to the movable plate 40 of the interface apparatus 20. For example, in the abstract, Lewis discloses that the bellows 80 covering the cassette creates the mini-environment. The mini-environment includes the interface apparatus, tool and pod cover. Lewis discloses that the sensors are disposed within the movable plate 40 of the interface apparatus 20, not the pod 2. (See col. 7, lns. 65-67). Lewis also discloses that since many sensors are disposed in the limited area of the moveable plate 40, they can avoid interfering with each other and they can be protected from accidental displacement. (See col. 8, lns. 4-14).

Applicant's invention has the advantage of monitoring the internal environment of a transportable pod throughout the entire manufacturing process and especially during transportation of the pod and wafers. Applicant's sensor is mounted on the transportable pod instead of on a portion of an interface apparatus, such as within the movable plate 40 disclosed in the Lewis patent. Applicant has amended independent claims 35, 49, 58, 65 and 70 and numerous dependant claims to clarify that the sensor(s) is mounted directly to a transportable pod. Applicant has also amended the above claims to clarify that the pod shell and door define the internal environment being monitored by the sensor. The amendment should not be viewed as a narrowing amendment, but rather clarifying that which applicant regards as the invention.

Transportable pods often contain valves for allowing the transfer of fluids to and from the sealed internal environment of the pod. Contaminants can enter the pod through these valves. If the internal environment of the transportable pod is not monitored, the contaminated transportable pod and wafers can contaminate a clean interface apparatus. If the interface apparatus becomes contaminated it must be cleaned, thereby slowing down the manufacturing process. Since the sensors of Applicant's invention are mounted directly to the transportable pod, they can continuously monitor the internal environment of the transportable pod. They can monitor the internal environment before it is positioned in an interface apparatus, while an

Application No. 10/042,849

interface apparatus is processing the transportable pod and after the transportable pod leaves the interface apparatus. At any point, the sensors mounted directly to the transportable pod can notify a user or operator when the transportable pod becomes contaminated. This permits the removal of the contaminated pod before it can contaminate other equipment and pods. It also permits an operator to monitor a particular location where transportable pods may become contaminated and to take appropriate measures to prevent future contamination. The Lewis patent is limited to monitoring the mini-environment created by the bellow of a particular interface apparatus. It cannot monitor the internal environment of the pod before or after processing by the interface apparatus.

In view of the foregoing, Applicant respectfully requests withdrawal of the rejection of claims 35, 36, 39-43, 46-71 under 35 U.S.C. § 102(e).

Rejection of Claims 37, 38, 44 and 45 Under 35 U.S.C. § 103(a) as Being Unpatentable Over Lewis Et Al. in View of Okada Et Al.

In view of the foregoing, Applicant contends that the independent claims from which each of the above claims depends is in condition for allowance. Therefore, the rejection of claims 37, 38, 44 and 45 is moot and Applicant respectfully requests the withdrawal of the above rejection.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Application No. 10/042,849

Respectfully submitted,


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